

DISCUSSION

Applicant gratefully acknowledges the allowance of Claims 3 through 5. Applicant has amended Claims 1 and 2 in accordance with the objections raised by the Examiner and Applicant would respectfully submit that Claims 1 through 5 are now in condition for allowance.

Applicant respectfully submits that with this Amendment, the objections raised by the Examiner to the specification and abstract are obviated.

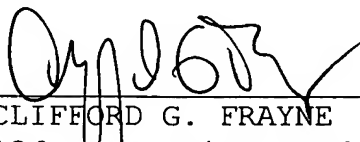
Applicant further submits a supplemental Declaration in which Applicant claims the benefit of the filing dates of the parent application set forth on page 1 of the specification.

In light of the foregoing amendments, Applicant respectfully submits that the claims and the application are in condition for allowance and a notice of same is respectfully solicited.

Respectfully submitted,

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Related Applications

~~This is a continuation-in-part application of U.S. Patent Application Serial No. US2002/0166483, filed May 14, 2002, published November 14, 2002, which is a continuation-in-part application of U.S. Patent Application Serial No. 09/526,388, filed March 16, 2000, now U.S. Patent No. 6,273,007, issued August 14, 2001, which was a divisional application of U.S. Patent Application Serial No. 09/271,714, filed March 18, 1999, now U.S. Patent No. 6,044,776, issued April 4, 2000. The entire disclosures of these related applications are expressly incorporated herein by reference.~~

This is a continuation-in-part application of U.S. Patent Application Serial No. 10/145,402, filed May 14, 2002, now U.S. Patent 6,637,353, which was a continuation-in-part application of application No. 09/928,928, filed August 13, 2001, now U.S. Patent 6,386,122, which was a continuation-in-part application of application Serial No. 09/526,388, filed March 16, 2000, now U.S. Patent 6,273,007, which was a divisional of application of application Serial No. 09/271,714, filed March 18, 1999, now U.S. Patent 6,044,776. The entire disclosures of these related applications are expressly incorporated herein by reference. The entire disclosures of these related applications are expressly incorporated herein by reference.

immobile, still are vulnerable at the points of connection between the plurality of components that make up the safe.

Accordingly, what is desirable and has not heretofore been developed, is a modular safe which has the desired benefits of immobility and strength, with the added advantages of being impervious to attack at the critical joints of the modular pieces.

Some of the numerous efforts to provide modular safes are as follows:

Ouellette, U.S. Pat. No. 5,488,914, discloses a security device for boxes. The security device includes a cabinet device which has an open top section into which a bottom portion of the box which is to be secured is inserted into the upper inner portion of the cabinet device. The bottom base includes a locking device for securing the cabinet onto a supporting surface such as a floor.

Nikoden, Jr., U.S. Pat. No. 4,426,935, discloses a case for securing valuables which includes a plurality of interconnected panels defining an interior space. The individual panels are readily transportable for convenient location and assembly; however, the case, once assembled, cannot be so readily moved from its location. Some of the panels employed include inside-facing surfaces and connectors such as threaded studs, while cooperating connectors such as 90 openings for receiving the studs are defined by other panels, so that upon assembly of the respective panels, access to the connectors is available only from within the interior of the case. The device further discloses top and bottom panels which are interconnected to the side walls of the enclosure. The bottom panel is fitted with filler plates to eliminate any gaps along the bottom side edges of the case. It is further disclosed that said panels may be made of sheet metal, having 90 degree bends for forming the respective panel side edges. A double bend is then utilized for forming the respective lips which prevent access to the interconnecting bolts from the exterior of the security space.

Sands, et al., U.S. Pat. No. 4,389,948, discloses a vault constructed by assembling together a

side panel shell 80. Prior to forming or attaching the walls to the bottom plate, the shell bottom plate 86 has attachment bolt apertures 58 punched out at both the top and bottom edges thereof. If the side wall will receive lock bolts from the door of the safe, the shell bottom plate 86 is further punched with locking bolt apertures 88 along an edge thereof. These locking bolt apertures are then covered with covers 89 which comprise cylindrical bodies and caps and which define the bolt receiving space during the remaining fabrication steps.

Figures 4a and 4b show the next steps involved in the construction of the side panel. First, attachment bolts 57 are fitted through the attachment bolt apertures 58. The attachment bolts 57 are then fitted with attachment plate spacer 63. Thereafter a layer of expanded metal 90 is placed within the shell and covers the entire shell bottom plate 86 with the exception of the space occupied by the locking bolt aperture covers 89. Next, the attachment bolts 57 are fitted through an attachment bolt plate 62 and locked into place by attachment nuts 61. Then, a second layer of expanded metal 90 is positioned with the shell over the first layer.

Figures 5a and 5b detail the final steps of construction. The second layer of expanded metal 90 is secured in place by support brackets 94 which are held in place by support bolts 97. Then, a single pour of high density concrete 100 is poured into the shell. Then the shell is vibrated to permit the concrete to settle, and the concrete is allowed to set. Importantly, the panel is constructed with the smaller, inner portion down so that only one pour is necessary. At this point all that is required is the attachment of a cover or fascia plate of any desired material which can be glued or otherwise attached to the exterior of the panel to provide any desired appearance. This step can be performed before or after the construction of the safe.

Construction of the top and bottom panes 30 and 40 follow generally the same method of construction. Likewise, the door 21 is a panel and does not require any special top and bottom filler

280, the structure of which will be further discussed hereinafter, are interconnected by a means of security bolt boxes 250 which attach the panels together to form a safe. Each of the panels 230, 240, 270, and 280 include an outer face and an inner face. Opposing side panels 270 have security bolt boxes 250 attached thereto. The security bolt boxes 250 include bottom faces 252 and upstanding walls 254 to form a tray-like configuration. The upstanding walls 254 can be interconnected with the bottom face 252 or can be formed by a bending and forming operation as previously described. The opposing side panels 270 by means of anchor bolts (not shown) which extend through anchor bolt box apertures 256 provide with attachment bolt apertures 258 extending through the upstanding walls 254 for receiving attachment bolts (not shown) to attach opposing side panels 270 with top and bottom panels 230, 240 and back panel 280 to form a safe. Importantly, the upstanding side panels 254 of the security bolt box 250 are recessed from the forward and rearward edges of opposing side panels 270 to allow for positioning of rear panel 280 and front panel ~~121~~ 221. The security bolt boxes 250 are flush with the upper and lower edges of the opposing side panels 270. The opposing side panels 270 as well as back panel 280 sit on bottom panel 240. Likewise, top panel 230 sits on top of opposing side panels 270 and back panel 280. The front panel 221 can be hingedly attached to one side panel 270.

The panels shown in Figures ~~6a-6c~~ 7a-7c can be constructed in the same manner as previously disclosed herein.

Figure 8 is a side view of two panels 300 positioned adjacent each other, each panel includes an outer surface 333 and an inner surface 334, the inner surface 334 having a rabbet face 336. These panels are identical to those illustrated in Figure 6c. In the embodiments heretofore discussed, one panel 300 would be used to form the bottom of a safe, and one panel each would be used to form the side panels of a safe with another identical panel 300 being used to form the upper wall of the safe.

ABSTRACT

The modular security safe with offset security bolt box of the present invention includes a number of modular panels which serve as the top, bottom, and sides of the safe. The modular panels of the safe are cast in a plastic or metal mold with high-density concrete reinforced by expanded metal. The modular panels included outer portions and stepped or rabbeted inner portions. The panels are formed from a sheet of material bent to a desired form. Concrete is poured in to the panel, in a single pour step. The panel is vibrated to allow the concrete to settle, and the concrete is allowed to set. The outer surface can then be covered with a desired laminate. The panels have security bolt boxes attached by bolts to the inner portions thereof. Security bolt boxes comprise a tray having a bottom and upstanding walls, and they can be formed by bending a single sheet of material. The modular side panels are attached to the top and bottom panels by bolts extending through the security bolt boxes. This results in a construction where the bolts are offset from the seams of the safe and therefore, the bolts, and the safe, are not subject to easy attack. Further, multiple panels are interconnected by a filler panel and security boxes to allow for the expandability of a safe to a larger size, such expansion being capable of being accomplished in situ.

~~In another embodiment, the security bolt box of the present invention includes top, bottom and side panels for form a safe. Opposing side panels have security bolt boxes attached thereto. The security bolt boxes each comprise a tray having a bottom and upstanding walls and can be formed by bending a single sheet of material. The top, bottom and back panels are interconnected with the side panels by bolts extending through the security bolt boxes into the top, bottom and back panels. In a further embodiment, multiple panels are interconnected by a filler panel and security boxes to allow for the expandability of a safe to a larger size, such expansion being capable of accomplished in situ.~~
